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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,180	10/14/2004	Lydie Livolsi	METPAT P72AUS	1994
20210	7590	09/07/2005		
DAVIS & BUJOLD, P.L.L.C. FOURTH FLOOR 500 N. COMMERCIAL STREET MANCHESTER, NH 03101-1151			EXAMINER MACPHERSON, MEOGHAN E	
			ART UNIT	PAPER NUMBER
			3732	
DATE MAILED: 09/07/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/511,180	<b>Applicant(s)</b> LIVOLSI, LYDIE	
	<b>Examiner</b> Meaghan E. MacPherson	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-48 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Priority*

1. Acknowledgement is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in France on April 15, 2002. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Drawings*

2. The drawings submitted on October 14, 2004 have been accepted by the examiner.

### *35 USC § 112 6<sup>th</sup>*

3. Regarding claim 29, the word "means" is preceded by the word "mechanical" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

4. Regarding claims 29, 30, 32, 33, 39, 41, and 42, the words "means of" is not considered as a recitation of 35 U.S.C. 112 6<sup>th</sup> because it does not meet the three prong test (see MPEP 2181).

### *Claim Rejections - 35 USC § 112*

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 29-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are

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replete with grammatical and idiomatic errors. As such, claims 29-48 will be examined as best understood.

7. Claim 43 recites the limitation “the element of rigidification” in. There is insufficient antecedent basis for this limitation in the claim, as claim 43 is dependent on claim 41 not claim 42.

For the purposes of this Office Action, dependence of claim 43 will be assumed upon claim 42.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 29, 30, 35, 40, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Starr’976 (US Patent No. 347,976).

Starr’976 discloses an impression tray A with a gripping stem B for the capture of the upper or lower jaw comprising a gutter in the general shape of an arch with a central curved section prolonged by two side branches. The gutter consists of a basic wall bordered by an interior side wall A<sup>2</sup> and an exterior side wall A<sup>1</sup> defining a receiving throat to be filled with impression paste (lines 66-82; see Figures 1-8). The gutter presents an integrated zone of multidirectional extension, deformable at the temperature of use without mechanical means, in the form of an extendable structure adjacent to slot *a* (lines 52-57,75-82). A split zone of lower mechanical resistance is found at the tip of slot *a* at the junction of the central extendable structure and either branch extendable structure, where the impression tray is able to split into

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one or more tray sections with the remaining sections including at least one integrated zone of multidirectional extension (see Figures 1-8).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Starr'976.

Regarding claim 32, it would have been an obvious matter of design choice to make the impression tray of Starr'976 with four means of multidirectional extension, since such a modification would have involved a mere duplication of parts for a multiplied effect in the impression tray. A duplication of parts is generally recognized as being within the level of ordinary skill in the art. *St. Regis Paper Co. v. Bemis Co, Inc.*, 193 USPQ 8, 11 (7<sup>th</sup> Cir. 1977).

Regarding claim 33, it would have been an obvious matter of design choice to make the impression tray of Starr'976 with the means of multidirectional extension located on the central curved section of the gutter, and on each of the side branches of the gutter since such a modification would have involved a mere rearrangement of parts in the impression tray. A shift in location of parts is generally recognized as being within the level of ordinary skill in the art. *In re Japikse*, 86 USPQ 70 (CCPA 1950).

12. Claims 31, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Starr'976 in view of Kesling'151 (US Patent No. 3,990,151). Starr'976 discloses a dental impression tray that shows the limitations as described above; however, Starr'976 does not

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disclose the extendable structure as a bellow, the entire length of the gutter taking the shape of a single bellow, or the impression tray of this shape having sections of important length to be divided by the physician.

Regarding claim 31, Kesling'151 teaches bellows 33,34 as extendable structures for more suitable fittings (see Figure 4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the extendable structures of Starr'976 to incorporate the teachings of Kesling'151 to create a more flexible and effective multidirectional extender in efforts to achieve patient comfort and higher standards or impression quality.

Regarding claims 36 and 37, at the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to form the entire length of the impression tray gutter in the shape of a single bellow because Applicant has not disclosed that shaping the entire length of the gutter as a single bellow provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art furthermore, would have expected Applicant's invention to perform equally well with the individual extension elements shaped as bellows because both provide equal adjustment of the impression tray inside of a patient's mouth and the capability of being broken into sections of important length. Therefore, it would have been an obvious matter of design choice to modify Starr'976 in view of Kesling'151 to obtain the invention as specified in claims 36 and 37.

13. Claims 34, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Starr'976 in view of Kesling'151, and further in view of Wright'768 (US Patent No. 6,213,768 B1). Starr'976 in view of Kesling'151 discloses a dental impression tray that shows the limitations as described above; however, Starr'976 in view of Kesling'151 does not disclose an impression tray with perforations, the gutter a forming a vault in order to match with a shape

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with the roof of the mouth to capture the impression of a velum in addition to the higher dental arch or placement of the means of extension such that adjustment is possible within the vault region.

Regarding claim 34, Wright'768 teaches a dental impression tray with a plurality of perforations 16,17, and 18 (see Figures 1-4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the impression tray of Starr'976 to incorporate the teachings of Wright'768 to create a dental impression tray with perforations to allow excess impression material to flow and eliminate air bubbles in the impression.

Regarding claim 38, Wright'768 teaches a dental tray having an anterior section 11 conforming generally to the anatomy of a person's maxillary dentition and an elevated portion 14 conforming generally to the anatomy of the hard pallet 25 to capture the impression to the velum and higher dental arch (see Figures 1,2, and 5-8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the impression tray of Starr'976 in view of Kesling'151 to incorporate the teachings of Wright'768 to create a dental impression tray capable of matching to the shape of a patient's roof to capture a complete and accurate impression of a patient's higher dental arch and velum for treatment and diagnosis purposes.

Regarding claim 39, it would have been an obvious matter of design choice to make the impression tray of Starr'976 in view of Kesling'151 with the means of extension located on the interior side vault region since such a modification would have involved a mere rearrangement of parts in the impression tray. A shift in location of parts is generally recognized as being within the level of ordinary skill in the art. *In re Japikse*, 86 USPQ 70 (CCPA 1950).

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14. Claims 42-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Starr'976 in view of Andreiko'826 (US Patent No. 5,752,826). Starr'976 discloses a dental impression tray that shows the limitations as described above; however, Starr'976 does not disclose a plate-support as an element of rigidification having a means of constant length, in the shape of a U with two branches and having an end forming a strip-handle, with bridges of material of a type of pass-girdles, and spacers to maintain the distance between the side walls of the impression tray and the side walls of the receiving form.

Andreiko'826 teaches an element of rigidification 14 of constant length, a plate support, in the general shape of a U with two branches 42, 44 and having an end forming a handle 40 (see Figure 1). Andreiko'826 also teaches bridges of a type of pass-girdles 32 which also serve as spacers between the impression tray and receiving form. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the impression tray of Starr'976 to incorporate the teachings of Andreiko'826 to create a more stable impression tray and an impression tray that provides an easier way for the those involved in the art to assemble and disassemble impression tray from plate-support

Regarding claims 46, at the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to form the receiving form broader than the impression tray because Applicant has not disclosed that a receiving form broader than the impression tray provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art furthermore, would have expected Applicant's invention to perform equally well with the receiving form the same broadness as the impression tray because both provide equal support and stability to the impression tray. Therefore, it would



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have been an obvious matter of design choice to modify Starr'976 in view of Andreiko'826 to obtain the invention as specified in claim 46.

Regarding claims 47, at the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to shape the receiving form to the likeness of the gutter because Applicant has not disclosed that shaping the receiving form as the shape of the gutter provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art furthermore, would have expected Applicant's invention to perform equally well with a receiving form not taking the shape of the gutter because both provide equal support to the impression tray and will yield an accurate impression of the lower or higher dental arch. Therefore, it would have been an obvious matter of design choice to modify Starr'976 in view of Andreiko'826 to obtain the invention as specified in claim 47.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,428,315 B1 to Prestipino et al discloses a dental impression tray with creases or perforations so that the tray can be broken into portions for segmental jaw impressions.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meaghan E. MacPherson whose telephone number is (571)-272-5565. The examiner can normally be reached on Mon-Fri 9am-5pm.

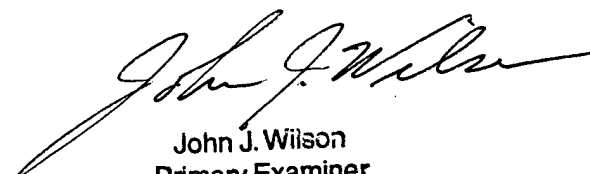
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571)-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Meaghan E. MacPherson*  
Meaghan E. MacPherson

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John J. Wilson  
Primary Examiner